

## Pre-analysis plan

### Long-run Effects of Non-Food Item Vouchers in a Humanitarian Context: The Case of the Rapid Response to Movements of Population Program in Congo

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#### 1. Introduction

In 2017 and 2018, we conducted a field experiment in 31 villages in Eastern Congo, to learn about the impact of Non-Food Item (NFI) vouchers on 1) physical health, 2) mental health, 3) social cohesion, and 4) resilience. Data was originally collected around six weeks after the distribution of the vouchers. The pre-analysis plan was registered at EGAP (ID= 20170919AA).<sup>2</sup> More information about the intervention, how the original outcomes are measured, and study context can be found in that document.

Here, we outline a plan to revisit the same villages about one year after the distribution of vouchers to understand 1) the long-run effects of the NFI vouchers on the same four outcomes, 2) the effects of NFI vouchers on women's empowerment, and 3) the effects of the NFI vouchers on (onward or return) migration.

The original IRB protocols have been amended and approved (New York University #064-2017).

This document gives information about this new data collection effort and the proposed analysis.

#### 2. Research questions

We aim to answer the following questions:

1. What are the effects of humanitarian assistance after 6-12 months on adult mental health, child physical health, social cohesion, and resilience?
2. What are the effects of humanitarian assistance after 6-12 months on women's empowerment?
3. Does receipt of humanitarian assistance influence the decision to migrate?

#### 3. Data collection and timeline

The original data collection effort consisted of two rounds of surveys. We interviewed respondents from about 1,500 households (in almost 1,000 dwellings) before the intervention and around six weeks after the intervention. As part of this data collection exercise, we will revisit the same villages, and aim to re-interview the same people that were interviewed as part of the baseline.<sup>3</sup>

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<sup>2</sup> <http://egap.org/registration/2832>

<sup>3</sup> We choose to revisit the baseline respondent and not the endline respondents for two reasons. First, attrition between the first two survey waves was relatively small. Second, the composition of the second wave respondents may be potentially endogenous (if the treatment caused particular respondents to migrate, refuse to participate, etc.).

The survey that will be conducted with these individuals is almost identical to the second survey wave. We made some changes to the initial questions required to identify households, and we added two sets of questions about women's empowerment and migration (see below).

We aim to collect the data in the fall of 2018 and first quarter of 2019. We will first undertake the data collection in five villages. We may not collect data in the subsequent villages if any one of the following holds: 1) It is not safe to visit the locations (for security reasons, Ebola, etc.), or 2) if in the first villages less than 25% of baseline respondents can be re-interviewed.

#### 4. Outcomes and Empirical Strategy

Outcomes related to adult mental health, child physical health, social cohesion, and resilience will be the same as those collected at the original endline. Anthropometry measures and child health tests will be re-administered.

For women's empowerment, we make use of questions W1-W16 in Appendix A, where W1-W9 relate to economic empowerment (based on Huis et al, 2017)<sup>4</sup> and W10-W20 relate to social empowerment (based on Björkman Nyqvist and Jayachandran, 2017).

We are interested in migration as an outcome, and we are concerned about attrition as a threat to internal validity. In our context, attrition is not equivalent to migration. A household in for example a multi-household dwelling may move into a new dwelling (i.e. migrate) but remain near enough to survey. Therefore, we will model migration separately from our robustness checks on the influence of attrition.

Modeling migration should be straightforward since we will theoretically have information on all households (collected from either the households themselves or neighbors or village leaders). We will use a linear probability model to assess the influence of humanitarian assistance on migration, where migration is defined as leaving the dwelling in which a household lived at baseline.

$$M_i = \alpha_L + \beta_1 T_i + \gamma X_i + \varepsilon_i, \quad (1)$$

where  $M_i$  is a binary variable that takes the value 1 if the household migrated, and 0 otherwise.  $X$  is a vector of baseline characteristics (HH size, IDP status, host/hosted status, etc.).  $T_i$  indicates whether the individual's household was assigned to receive a NFI voucher. We add fixed effects,  $\alpha_L$ , by village site (the blocking variable, with  $L = 1, \dots, 31$ ).

For the other outcomes of interest (physical health, mental health, social cohesion, resilience, as defined in previous PAP, and women's empowerment as defined below), we will estimate (intention to treat) effects as follows:

$$Y_{i,LR} = \alpha_L + \beta_1 T_i + Y_{i,BL} + \varepsilon_i \quad (2)$$

, where  $Y_{1,LR}$  is the outcome family index value for respondent  $i$  measured during the long run survey,  $T_i$  indicates whether the individual's household was assigned to receive a NFI voucher. We add fixed effects,  $\alpha_L$ , by village site (the blocking variable, with  $L = 1, \dots, 31$ ). We add the baseline level of each outcome variable (except women's empowerment as these were not collected at baseline)  $Y_{i,BL}$  to increase precision (McKenzie 2012). For each outcome family we create a summary index following (Kling, Liebman, and Katz 2007). To deal with attrition, we will follow the standard operating procedures outlined in Lin, Green and Coppock 2016.

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<sup>4</sup> Which is again, in turn, a refinement of Schaner (2018).

## 6. References

- Björkman Nyqvist, M., and S. Jayachandran. 2017. "Mothers Care More, but Fathers Decide: Educating Parents about Child Health in Uganda." *American Economic Review*, 107(5): 496-500.
- Huis, M., R. Lensink, N. Vu and N. Hansen (2017). Teaching Gender Equality: Impacts of a Gender and Business Training on Empowerment among Female Microfinance Borrowers in Northern Vietnam. Working Paper, University of Groningen.
- Kling, J. R., J. B. Liebman, and L. F. Katz. 2007. "Experimental Analysis of Neighborhood Effects." *Econometrica* 75(1): 83–119.
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- McKenzie, D. 2012. "Beyond Baseline and Follow-up: The Case for More T in Experiments." *Journal of Development Economics* 99 (2): 210–21.
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## Appendix A: Additions and Changes to the Original Survey

Two additional modules will be added to the survey: 1) a panel module and a 2) module related to return migration. All questions always have “-7” (refused to respond), “-8” (not applicable) and “-9” (don’t know) as options.

### Module for household identification and migration

#	Question	Response option
M1	In which province are you?	—
M2	In which territory/commune are you?	—
M3	In which groupement are you?	—
M4	In which village are you?	—
M5	In which locality are you?	—
M6	What is the full name of the interviewee?	—
M7	Is this name on the list?	—
M8	[If M7=No] Is this person in the same household as a name on the list?	Yes No
M9	[If M7=No] What is their relationship to the name on the list?	Same person Brother/Sister Spouse Parent Grandparent Son/daughter Uncle/aunt Cousin Niece/nephew Other
M10	[If M8=No] What type of household is this?	Second HH, interviewed at baseline New HH, not interviewed at baseline
M11	[If M10=Second HH] Is the HH in the same dwelling as it was during visit 1, or a new dwelling?	Same dwelling New dwelling
M12	[If M10=New HH] With whom does this household share a dwelling?	Shares dwelling with primary HH from baseline Shares dwelling with second HH from baseline
M13	Enter the household code	—
M14	Enter the household code again	—
M15	Is the household still in the village?	Yes No
M16	[If M15=Yes] Is the household in the same dwelling as it was during the first interview?	—
M17	[If M15=No] Who is providing information about the household?	Religious leader Government official Chief of village Other village leader Health staff Host household Family member

		Friends Other (please specify)
M18	[If M15=No] How many months ago did the household leave?	
M19	[If M15=No] Where did the household go?	No longer exists (Death, dissolved...) Home village Other village City Camp Unknown
M20	Is the household close enough to survey? If no, end survey. If yes, please travel to the household's new location and conduct the survey	Yes/No

### Women's Empowerment Module: All surveys

#	Question	Response option
W1	In the last 4 weeks, how much income have you earned?	___
W2	How much do you have in savings?	___
W3	How much do you owe in debts?	___
W4	Who makes most decisions about purchasing food?	1=Me 2=My spouse 3=Someone else 4=My spouse and I decide together 5=My spouse and I decide on our own
W5	Who makes most decisions about purchasing goods for the home? (Pots, pans, clothes, etc)	ibid.
W6	Who makes most decisions about health expenditures?	ibid.
W7	Who makes most decisions about saving for the household (and for any businesses)?	ibid.
W8	Who makes most decisions about expenses for home or land purchase, improvement or repair?	ibid.
W9	Who makes decisions about how to assist family members?	ibid.
W10	When women get rights they are taking rights away from men	1=Strongly agree 2=Agree 3=Neutral/neither 4=Disagree 5=Strongly disagree
W11	Gender equality, meaning that men and women are equal, has come far enough already	ibid.
W12	A wife should obey her husband, even if she disagrees.	ibid.
W13	It is important for a man to show his wife/partner who is the boss.	ibid.
W14	It is the job of men to be leaders, not women	ibid.

W15	A woman should be able to choose her own friends, even if her husband disapproves	ibid.
W16	A man should decide how to spend his free time on his own	ibid.
W17	A woman should decide how to spend her free time on her own	ibid.
W18	If a woman has power in the household, it means she is taking power away from her husband	ibid.
W19	A husband and wife can share power	ibid.
W20	Women's opinions are valuable and should always be considered when household decisions are made	ibid.

In addition, the following changes were made to the original endline survey:

- Moved questions about respondents name to beginning, to facilitate matching of name to HH ID on printout that enumerators will be carrying
- Deleted the question "Did you receive an NFI voucher in the last six weeks?"
- Deleted the question "Have you received any other assistance in the last six weeks?"

## Appendix B: Updated Consent Form

Informed Consent  
Principal Investigator: Ghislain Bisimwa

My name is [name]. I am a research assistant hired by the Catholic University of Bukavu. I would like you to participate in a short survey. We are conducting interviews to understand the impact of humanitarian aid on the health and the well-being of internally displaced populations in Eastern DRC.

You participated in this study one year ago, and we are asking you to participate again so that we can also learn about the longer-term impact of humanitarian aid. Also, note that we will link the information that we collect now with information that we collected a year ago: to learn about changes that might have taken place over time.

Before we begin, I would like to take a minute to explain why I am inviting you to participate and what I will be doing with the information you provide to me. Please stop me at any time if you have any questions. After I have told you a bit more about the research project, you can decide whether or not you would like to participate.

To refresh your memory, the goal of this study is to determine the most appropriate form of humanitarian aid for internally displaced populations in the future. We are focusing specifically on vouchers received from NGOs. We have interviewed and will be re-interviewing about 1,500 people in about 10 communities. The questions in the survey are about you, your household, and your community.

In addition, we would like to measure the height, weight, and arm circumference of every child less than 5 years of age who lives in your household. We would also like to perform a malaria test and a test for anemia. These tests will require a finger prick so that we can take two drops of blood (one for the malaria test and one for the anemia test). The tests will be performed by nurses with prior experience. Your child might feel a small amount of discomfort or have a small amount of bruising on your finger where the blood was taken. You have the right to know the test results. Any children whose test results indicate severe anemia or symptomatic malaria will be referred to the local health center. Neither you nor your children's names will appear on any specimens. Moreover, we will promptly dispose of all samples taken and all results will be made anonymous. Any information obtained in connection with this study will be kept strictly confidential. Only members of the study team will have access to information linking your name with your responses.

By participating in this survey, you will contribute to a better understanding of the challenges faced by IDPs and the effects of humanitarian assistance. The researchers will use the information collected in policy reports, as well as scientific articles that might be published and presented. No publications will include names or other personally identifiable information of participants. You can refuse to give us any information, including your name.

You do not have to answer all the questions if you do not want to. The interview should not last more than 90 minutes. Participation is on a purely voluntary basis and is not rewarded. We cannot promise that you will receive any benefits from participating in this study. The information we collect today is private and confidential. We will not share any details from the survey with anyone besides the research team.

If at any time and for any reason, you would prefer not to answer any questions, please feel free not to. If at any time you would like to stop participating, please tell me. We can take a break, stop and continue a bit later, or stop altogether. You can also choose to end the interview at any time if you wish without any consequence to your household, your family, or your hosts.

There are no correct or incorrect responses, so please express your opinions freely.

If you have any questions regarding this research or your rights as a research study participant, you may contact us at the phone number:

- Tyler THOMPSON, Field Research Associate, 0978026962
- Ghislain BISIMWA, Principal Investigator at the Catholique University of Bukavu, 0998088051

May we have your permission to conduct the survey, and would you be willing to participate?

[Enumerator: continue with discussion only if respondent gives consent.]”

## Appendix C: Additions and Changes to Original Protocols

You will revisit the same locations where we have conducted the surveys before. We expect to be in these locations for about a week because finding the people to interview will take more time than before.

### Whom to interview?

At these locations, during the baseline survey, two types of dwellings were visited:

- **Single household dwellings:** In these dwellings, one baseline survey was conducted with the senior female of the household.
- **Multiple household dwellings:** In these dwellings, two baseline surveys were conducted. One with the senior female of the main household, and one with the senior female of another household in that dwelling.<sup>5</sup>

Your goal is to re-interview the same individuals that were interviewed during the baseline survey. If the same person cannot be interviewed but another person from the same household can be interviewed, you do that.

If the secondary household has moved to a new dwelling, **we still want to interview that household.**

We provide you with contact information of the people interviewed at baseline: the “**LISTE RESPONDANTS**”. This is the most important document for your work! This list will contain the following bits of information:

- **LOC\_ID:** The code for the location (1-7). Write down this code in your survey
- **HH\_ID:** The code for the primary household. Write down this code in your survey
- **BL:** The list includes all the households that should have been interviewed. This variable indicates whether the household was in fact interviewed.
- **BLOCK:** The name of the locality (there can be multiple within a location)
- **VILL:** Name of the village
- **NOM\_1:** Name of the respondent of the primary household that was interviewed for the baseline survey. Make sure you interview this same person again!
- **SEXE\_1:** Gender of that person
- **AGE\_1:** Age of that person (not available for locations 1 and 2)
- **EPOUX\_1:** Name of the respondent’s spouse. This can help you find the respondent.
- **HOSTED\_1:** Was the household being hosted at baseline?
- **HOSTING\_1:** Was the household hosting another household at baseline?

The following variables will contain information if also a second individual was interviewed in the dwelling during baseline:

- **NOM\_2:** Name of the respondent of the secondary household that was interviewed for the baseline survey. Make sure you interview this same person again!
- **SEXE\_2:** Gender of that person
- **HOSTED\_2:** Was the secondary household being hosted at baseline?
- **HOSTING\_2:** Was the secondary household hosting another household at baseline?

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<sup>5</sup> The host household if that household was not already interviewed; if the host household was already interviewed, the additional household should be a randomly selected IDP household.

## Replacement

Replacements may take place under the following conditions:

- The household can be found but not the right individual.
  - First choice: interview the head woman in the household
  - Second choice: interview the person who is most knowledgeable about the health of any children in the household
  - Third choice (if there are no children): interview the senior-most woman in the household
- The secondary household that was interviewed at baseline cannot be interviewed, but there are other households in the dwelling. You randomly select another secondary household. Use the columns “M1” to “M4” in the **LISTE REpondants**.
- You will need to fill out a questionnaire for all names on the list AND for any replacement households.

## The importance of finding the right people

It is crucial that we find the same individuals that were also interviewed during the baseline survey. However, people may have moved on and may no longer be at the same location as they were during the baseline survey. We have to undertake great efforts to find these people.

First, understand where the person is now. Ask neighbors where the individual/household is. Ask the village chief where the individuals moved to. We plan to have an advance team composed of the team leader and one finder to work with the local guides with whom we originally worked (often the most trustworthy of the guides who helped the NGO conduct targeting originally). We reason that we will need two to three days to work with the local guides to make sure that they understand who we want to talk to, why we are there, and address any misconceptions (e.g. anticipating assistance) that could motivate them to present the wrong individuals for survey. This time will also allow us to construct a “buffer” of households for whom we know the locations, so that enumerators can begin surveying immediately on arrival at site and continue uninterrupted. During surveying, we will continue working with local guides to lead enumerators to households and localize the remaining households.

Second, find the individual.

- If the individual is located less than one hour walking distance away, please visit the person.
- If the individual is located more than one-hour walking distance and cannot be in the village within a day, then fill out the document “**LISTE POUR TROUVER**” give the details about the individual (name, survey ID, etc.) and their current locations to the “Finders”. They will try to find and interview the individuals.
- After you have filled out the **LISTE POUR TROUVER**, fill out the questionnaire for the household. You will only be asked “panel module” and the “migration module” for the original respondents/household. Only after that start a new survey.

## The “Finders”

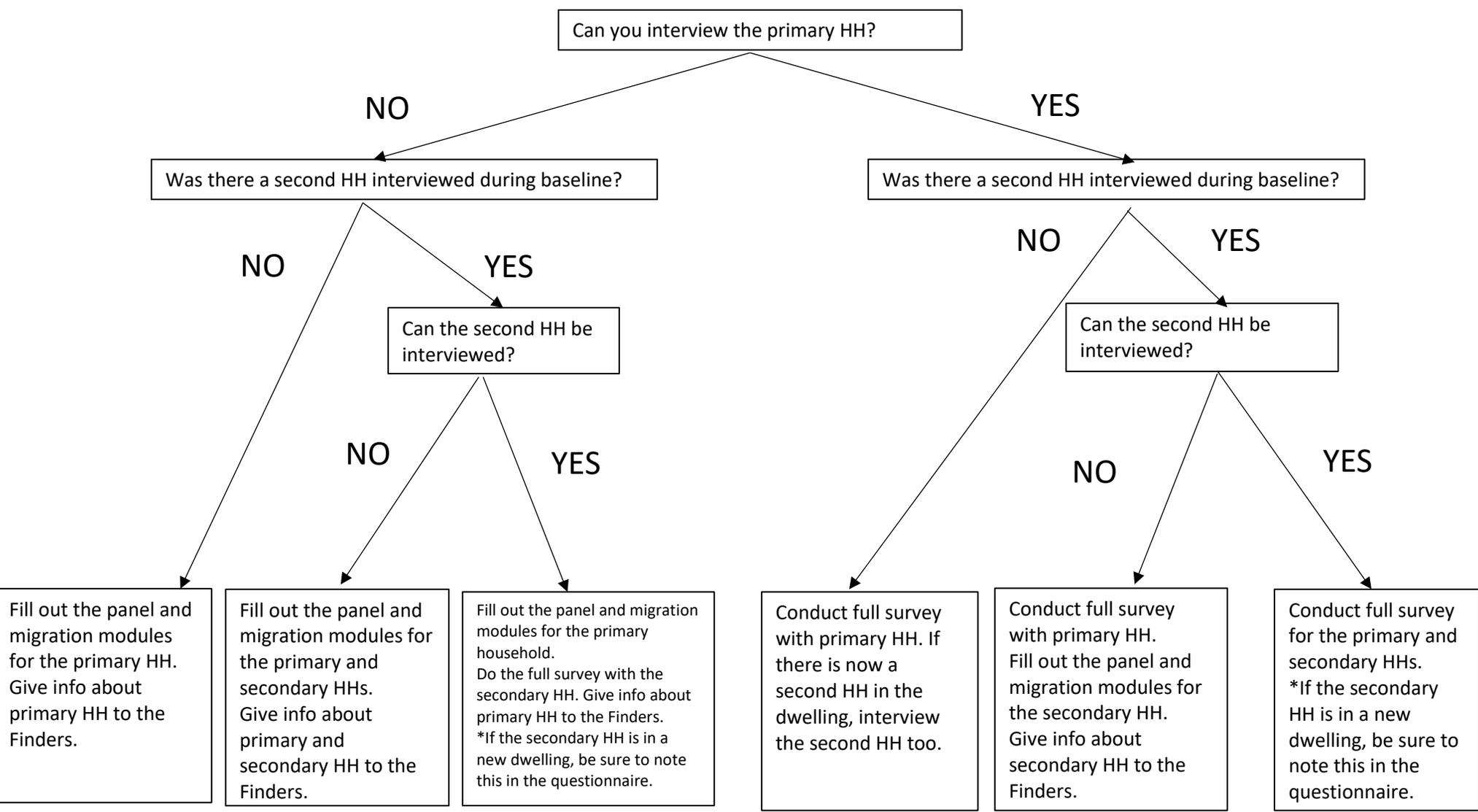
Part of the survey teams are two Finders. Finders are enumerators that help conduct surveys in the village. In addition, at the end of the survey activities in a location the finders collect the information about all the individuals that have moved out of the village and try to find and interview these individuals.

The finders will not look for people if:

- The individual has moved to a village more than two days away
- The individual has moved to a location that is not safe

The decision tree (see **Figure 1**) will give you an overview of the steps.

Figure 1: Decision Tree



**Important: If the same individual cannot be found, randomly select another individual from that household**

## Appendix D: Ebola prevention protocol

### Overview:

As of 1 Sept 2018, the number of suspected and confirmed cases in North Kivu province evolves daily. The outbreak is centered on Mangina, approximately 20km NW of Beni city. There are currently two established Ebola Treatment Units (ETU), one in Mangina and one in the city of Beni. A third ETU is planned in the province of Ituri, in the Health Zone neighboring Mangina as at last count there were 7 confirmed cases in Ituri. The situation in Mangina is serious, with the ETU facing resource constraints and a spike in cases, overflow is to be transferred to the ETU in Beni. Daily meetings are held at the Provincial Health Department on a daily basis, and the project's medical consultant Dr. Christian MUSUNGAY has attended these regularly since 18 August to gather updates on the situation and inform the project of best practices being adopted by NGOs. Two consensus views have formed, largely informed by lessons-learned from past outbreaks:

1. NGOs will continue their activities in spite of the outbreak;
2. There will be no blanket quarantine of areas with confirmed cases.

### Practical Issues:

The medical consultant has established and maintains regular contact with:

- Focal point for ALIMA (managing ETU in Beni)
- Focal point for MSF (managing ETU in Mangina)
- Focal point for Mercy Corps (operations PNK)
- Focal point for Solidarités International (operations GNK-Ituri)

Fortunately, all but one of our sites are over 100km from Mangina/Beni, with most being practically inaccessible by direct road travel from those areas.

Site	<i>Distance from Mangina (epicenter)</i>	
	By road	Objective / ATCF*
1. Butale	....	210 km
2. Kibarizo	....	212 km
3. Alimbongo	152 km	110 km
<b>4. Mbau</b>	<b>45 km</b>	<b>20 km</b>
5. Kirumbu	....	200 km
6. Pinga	....	190 km
7. Nyabiondo	....	220 km

\*ATCF = As the crow flies, i.e. straight line distance

### **Measures Proposed:**

In addition to continuing to monitor the situation and avoiding work around or travel through Beni/Mangina (in practice this concerns Site 4/Mbau), the project has begun to implement the following measures:

1. Conduct staff training on Ebola transmission, symptoms, and new protocols. The purpose of this is both for enumerator safety but also to be prepared to answer questions likely to be posed in the communities in which we work.
2. Reinforce protocols for disinfection by chlorine/alcohol of materials that could facilitate transmission (weighing saddles, measuring mats, containers, etc.)
3. Adopt and train on contingency planning in the case of reports of suspected cases or enumerator contact with suspected cases. Make sure that all enumerators know the number of and understand the “green hotline.”
4. In addition to normal training sessions for local nurses, integrate training on points 1, 2 and 3.
5. Provide masks and medical blouses to all nurses and provide disinfectant and gloves to all enumerators.
6. Strictly limit medical interactions with members of the community to households on our list. All other queries will be directed to the local health center, or nurses from the local health center will be called to respond.
7. As the situation evolves, avoid any area with confirmed cases and (to the extent possible) any area with a credible suspected case.
8. Reinforce scrutiny of other avenues of pathogen transmission, including food, food preparation, and water in the field (chloramine tablets to be provided).